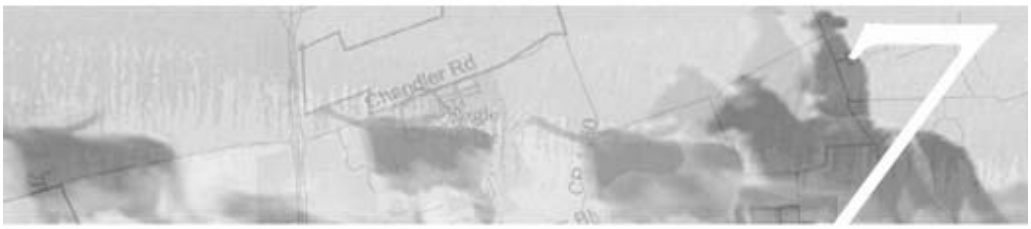

Transportation

Providing residents with access to work, services, and recreation through a transportation system with options to walk, bike, or drive

7.1 Introduction

Transportation touches many facets of our lives. In addition to accessing work, schools, and services, a transportation network provides links to other neighbor-hoods, creates a venue for exercise, and can become a community space that facilitates interaction with neighbors. Transportation facilities can also have negative impacts, such as noise, vibration, air pollution, water pollution, and congestion. Overall, an effective transportation system facilitates access while minimizing these negative effects. The Transportation Master Plan, March 2004 along with the General Plan 2000, represents policy determinations by the local community to address these challenges.

The goals and objectives of the General Plan 2000 seek an interwoven City transportation system to serve the needs of all residents. Transportation options in the plan include pedestrian, bicycle, and automobile facilities along with a recreational hike and bike system. These facilities must be designed to enhance safety while providing adequate buffers. By adopting effective land use policies the City can ensure continued access to work and services. As roadways function as gateways to the City, they should be designed with adequate aesthetic standards including screening and landscaping to attract visitors and potential residents.

7.2 Transportation Master Plan

Throughout the General Plan 2000 update, citizens cited traffic congestion and transportation as a vital issue to be addressed by the City. Surveys conducted in 1998, 2000 and 2002 confirmed the concerns of both the City Council and the City staff that traffic was the key growth-related problem affecting the City. To meet the transportation needs of the community, the City contracted with Rust Lichliter/Jameson, now Earth Tech, Inc., to develop a transportation master plan. The study began in November 1997 with the following objectives:

- evaluate the existing transportation network;
- identify current and future land uses and travel patterns, as well as population and employment forecasts;
- identify environmentally sensitive areas;
- develop roadway design standards;
- facilitate public awareness and incorporate citizen participation into the City's planning process;
- identify the necessary transportation network improvements to provide efficient and safe travel in Round Rock; and
- develop a prioritized improvement plan to serve the transportation needs of the community through development of the extraterritorial jurisdiction (ETJ).

Subsequently, Huggins/Seiler & Associates, LP, assisted the City in preparing an update to the Transportation Master Plan to reflect roadway construction progress, refinement of roadway alignments and changes in City roadway priorities. In addition, the roadway planning table was amended to include updated costs estimates and planning horizons of 2010 and 2020.

The resultant Transportation Master Plan, March 2004 which was adopted by the City Council to replace the Transportation Master Plan adopted on January 14, 1999, outlines a system of roadways with planning horizons of 2010 and 2020, and an ultimate roadway map that supports the anticipated needs of the City through ultimate development (map insert). While the General Plan 2000 establishes transportation goals and objectives, the Transportation Master Plan, March 2004 utilizes technical data to support those goals and objectives.

The Transportation Master Plan, March 2004 uses travel demand models to estimate existing and future traffic volumes. To be effective, these models must be regularly updated to reflect development and land use changes. Such changes could produce high volumes of traffic that overwhelm a

roadway's capacity. While traffic modeling is a useful tool for planning future roadways, it is only one of several factors that must be used for planning. Sound policy decisions are essential for future development. The City of Round Rock fully considers the design of roadways with facilities for cyclists and pedestrians that lead to safe conditions for all roadway users. Significant attention is given to pedestrian and cyclist design features, such as crosswalks, sidewalks and bike facilities. The City looks for ways to design transportation facilities that are sensitive to the needs of all users, including citizens with disabilities, as transportation facilities are developed.

The Transportation Master Plan, March 2004 includes a number of maps, which are used to plan and construct future roadways. The first map identifies potential hazardous material sites that could impact roadway construction. Another map displays floodplains, wetlands, and the boundaries of the Edwards Aquifer. These areas should be avoided whenever possible to limit degradation of water sources and the natural habitat. The Ultimate Roadway Network and the roadway table are essential parts of the Transportation Master Plan, March 2004. The network schematically displays the ultimate arterial roadway system, and the complete build out of transportation facilities, for the City. The table shows anticipated phased roadway construction for 2010, 2020 and the ultimate roadway system. In addition, the table outlines ultimate right-of-way widths. Both the network schematic and the table identify arterials with future bicycle facilities. These facilities will be included in the Citywide Trails Master Plan scheduled for publication in 2004 and which will become a part of the 2000 Parks, Recreation and Open Space Plan.

The General Plan 2000 includes the Ultimate Roadway Network and roadway table, located at the end of this chapter in Table 7.1. This document is to be used to ensure compatibility between roadways and proposed developments. Development s must include adequate rights-of-way and roadway designs responsive to City standards. The Transportation Master Plan, March 2004 however, should not be construed as a static document. The General Plan amendment process recognizes that conditions may change which require changes to the Transportation Master Plan. The General Plan amendment process is outlined in Section 11.310, General Plan Amendments, of the Code of Ordinances (1995 Edition). It allows amendments to the General Plan to accommodate changing conditions.

7.3 Right-of-Way Protection

Implementing adequate design standards for all arterials throughout the City is essential to improving mobility and reducing maintenance expenses. It is not necessary to initially construct the arterials to their full capacity, if full capacity is not required for several years. As mentioned earlier, the Trans-

portation Master Plan, 2004 outlines the anticipated construction schedule for the City's Arterial Roadway System for 2010, 2020, and ultimate network (see Table 7.1). Improvements should be made and coordinated in accordance with this overall schedule and with the anticipated needs and capacity of the roadways. All required rights-of-way should be identified early in the development process, preferably with the preliminary plat phase of the subdivision process. By identifying arterial rights-of-way, the City is preserving adequate space prior to street development. The Plan helps property owners identify the City's arterial system, and may prevent conflicting uses of property that may interfere with the efficient functioning of the system.

7.4 Functional Roadway Classification

The street system provides a basic framework around which the City is built. The street pattern determines, to a considerable extent, the distribution of residences, schools, industries, shopping centers, and emergency services, along with urban design. Few of the physical facilities of the City are as permanent as the streets, and once buildings are erected on abutting properties, any change in the location or width of roadways is likely to be difficult and expensive. Since a considerable amount of space of the developed area of the City is devoted to streets and their associated rights-of-way, proper planning for the develop-ment of these facilities is a prime planning concern.

The purpose of planning a street system is to ensure access, mobility, and safety for all modes of travel. A clear understanding of the functional relationships between various travel modes and types of streets is essential. The function of each street, along with topography and other existing features, determines its location, alignment, grade, width, and relationship with other streets.

Roadways also affect land use decisions for areas adjacent to roadways. The greatest automobile traffic volumes within the City are created by trips from residential areas to places of employment and retail centers, and by the transportation of materials to and from business, commercial, industrial and construction areas. Street system design and classification depend on the type of use and the volume, direction, and distance the expected traffic must travel. The functional classification system includes freeways, arterials, collectors, and local streets.

FREEWAYS

Freeways are limited-access highways intended to move high volumes of automobile traffic at relatively high speeds over long distances. They are direct links between major automobile traffic generators and have controlled access to maximize uninterrupted automobile traffic flow and

automobile safety. Access is provided along adjacent frontage roads or from intersecting City streets. Freeways connect the local area with cities outside the region. They are not intended to serve local traffic needs. Currently, Interstate Highway 35 (IH 35) provides north-south freeway access to the Round Rock area. State Highway 45 (SH 45) and State Highway 130 (SH 130) are under construction and will provide future east-west and north-south toll and free frontage access to the Round Rock area.

ARTERIALS

Arterials are continuous routes intended to serve high volume needs of both the local area and the region. Access is controlled by planning the locations of intersecting streets, left turn lanes, and signals. The function of these streets can be protected through ordinances that regulate the number and location of median breaks and driveway cuts. Due to high automobile speeds, protective measures should be made for cyclists and pedestrians along these routes.

COLLECTORS

Collectors that carry over 6,000 vehicle trips per day provide access and movement within residential, commercial, and industrial areas. Operating speeds are slower than arterials and turning movements are expected. The City normally discourages the fronting of residences on collectors. This type of street should be designed for medium volume, low speed traffic.

LOCAL STREETS

Local streets provide access to relatively small areas. Streets should be designed for low volume, low speed traffic. The length of the street and the number of dwelling units or businesses fronting the street should be limited.

7.5 Relationship of Land Use and Transportation

Land use and transportation are closely linked, although the relationship is difficult to define. Transportation decisions have implications for land use, and land use patterns affect transportation plans. Transportation planning is an attempt to resolve these relationships and determine optimal transportation solutions. But while transportation planning is a critical tool, it is merely one of a number of tools that an organization can use to proactively plan for the future. It is essential that transportation planning works in concert with the social, economic, environmental, and land development policies that define overall government policies and priorities.

Presently, the dominant social and economic force in the transportation system is the automobile. For the majority of residents, the automobile offers unparalleled mobility. One of the analytical tools employed by

transportation planners is a traffic impact analysis (TIA). TIAs estimate the increase in traffic generated by development. A condition of the development approval process includes compliance with reasonable measures, on behalf of the developer, to accommodate increases in traffic attributed to their development. Such requirements ensure that public health, safety, and welfare are protected and that the City is not burdened with developments having inadequate infrastructure.

The relationship between land use, transportation, and City policies is brought together by the actions of various City departments. Close cooperation and coordination is required among the Planning and Community Development Department, the Transportation Services Department, the Engineering and Development Services Department, the Water/Wastewater Utility Department and the Parks and Recreation Department. Each department has a role in the methodical development of the City's infrastructure. Road specifications, sewer and utility connections, sidewalks, easements, landscaping, and dedicated parkland are all considerations for new developments. City policies regarding these areas should support the goals and objectives of the General Plan 2000. Specific requirements established in ordinances offer the City and the community an opportunity to work with developers to modify roadway plans to meet the needs of specific developments, and integrate those plans with existing developments and roadways. Discussions and open dialogue during the development process provide a forum for exchanging the values of the City with the developer. At this time, the costs and benefits, as well as responsibilities are defined for all interested parties. Ultimately, the City hopes to increase the overall welfare of the community without unduly burdening any one portion of the populace.

7.6 National and Regional Context

The General Plan 2000 and the Transportation Master Plan, March 2004 identify and assess local transportation needs. In addition to these local plans, transportation policies must also consider how Round Rock functions within a larger regional perspective. Both national and regional forces help shape our transportation policies.

For instance, in 2003 the City of Round Rock replaced the City of San Marcos as the principal city named in the U.S. Census Bureau's designation for the Metropolitan Statistical Area (MSA) around the City of Austin. The new designation is the Austin-Round Rock MSA, which includes Bastrop, Caldwell, Hays, Travis and Williamson Counties. An MSA represents a major city and surrounding cities and towns.

A prime example of current regional considerations includes the ozone air quality levels measured in 1997-2002. The 5-county Austin-San Marcos MSA, now known as the Austin-Round Rock MSA, may be designated

nonattainment of the federal 8-hour ozone air quality standard by the US Environmental Protection Agency (EPA). A nonattainment designation means that the area does not meet the health-based standard and will be required to implement emission reduction strategies to clean up the air. Failure to clean up the area's air as required can result in restrictions on industrial growth and a partial loss of federal highway funding. Non-attainment designations are expected to occur in 2004 and a state generated emission reduction plan is expected to be implemented in 2007.

In response to these air quality problems in the Austin metropolitan area, the Clean AIR Force was formed. The Clean AIR Force is an independent, non-profit coalition comprised of representatives form government, environmental and business organizations. It formulates and promotes a community-wide campaign for air quality improvement. The City of Round Rock is a member of the Clean AIR Force, along with Austin, Bastrop, Elgin, Lockhart, Luling, San Marcos, and five county commissioner courts.

Optimally, the Clean AIR Force hopes to reduce vehicle emissions voluntarily to avoid designation as a non-attainment area. There is also a "transitional" classification for areas that met the previous one-hour standard for ozone of 125 parts per billion, but that violate the new eight-hour standard of 85 parts per billion. The transitional designation would be in lieu of a non-attainment designation and promises more flexibility in developing plans to come into compliance with the new ozone standard.

Both the EPA and the Texas Commission on Environmental Quality (TCEQ) have endorsed the concept of early action plans to improve air quality. These plans allow local selection of emission reduction strategies, result in clean air sooner than otherwise required and are an alternative to the standard nonattainment process.

Instead of waiting for a nonattainment designation, the 5-county MSA is proactively developing and implementing early action plans to clean up the air now. The MSA has developed the O3 Flex Agreement, which addresses the 1-hour ozone standard and implementation is underway. The MSA is now developing a Clean Air Action Plan (CAAP) as part of the Early Action Compact (EAC), which addresses the 8-hour ozone standard. Successful implementation of the CAAP may result in compliance with the 8-hour ozone standard in 2007, sooner than otherwise required.

The Transporation Equity Act for the 21st Century (TEA-21) markedly increased the availability of funds for transportation projects, provided Texas and other donor states with a fairer share of federal highway funds, and built upon the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), which emphasized the need for safer, more efficient management of integrated, multimodal transportation systems. TEA-21 continued the strong role of local elected officials in planning and programming transpor-

tation projects in metropolitan areas, and increased the involvement of local elected officials in non-metropolitan transportation planning.

As of January 2004, the President, the United States House of Representatives and the US Senate had proposed differing versions of a six-year federal highway reauthorization bill. All proposals preserve and/or improve the fundamental structure of TEA-21. The primary difference among the reauthorization proposals is the level and source of funding. It is expected that reauthorization funding will meet or exceed TEA-21 highway funding levels.

7.7 Future Regional Concerns

The population of the city of Round Rock continues to grow. In 1990, the City's Census population was 30,923, which was almost doubled in the 2000 Census. As of April 2003 the annual estimated population was 75, 402. The ultimate population of the City of Round Rock is estimated to be 236,000. The increase in population brings new opportunities for retail development and employment centers, such as Dell, Cypress Semiconductor and Round Rock Medical Center. In addition, the City is also experiencing economic growth, and preparing for the area's first Higher Education Center. Located in a relatively undeveloped northeast area of the City, the Round Rock Higher Education Center (RRHEC) will provide new challenges in providing transportation services.

To meet transportation demands of population, employment and economic growth, the city must develop sound transportation solutions that meet local needs and regional considerations. These solutions will be varied in a number of transportation modes including roadway expansion, high-occupancy vehicles (HOV), which includes regional/commuter rail, light rail, bus transit, limited shuttle service and van/car pools, and bicycle/pedestrian facilities. A well-developed transportation network for the region will provide links throughout the City and with the University of Texas, the State Capitol complex, the Austin Central Business District, and the Austin-Bergstrom Airport.

The Austin-San Antonio Corridor Council has proposed development of a 110-mile commuter rail line from Georgetown to San Antonio. This system could serve a dual purpose for work-related trips as well as increasing the number of recreational, shopping and educational trips throughout the travel corridor.

TxDOT is constructing two new highway facilities that will facilitate transportation demand in this region. State Highway 45 (SH 45 N), which will run east-west along the south side of the City, and State Highway 130 (SH 130), which will run north-south on an eastern alignment along FM 685. SH 45 is an integral part of the City's Transportation Master Plan, serving

the southern portion of the City and facilitating east-west movement for southern Williamson County from Cedar Park to SH 130. The SH 45 corridor features major employment and commercial complexes that will benefit from the roadway expansion. A large portion of the right-of-way is already reserved for the project and the roadway features frontage roads, which offer toll-free transportation alternatives for City residents. In addition to connections to major employers in Williamson County, SH 45 will provide critical connections to west Austin. SH 130 will have a significant impact on the Round Rock economy and the mobility of its residents. Using SH 45 (N) to access SH 130, Round Rock residents and businesses will have uncongested access to Austin-Bergstrom Airport, South Austin and IH-10

7.8 Summary

In summary, the City envisions a balanced transportation system that features pedestrian, bicycle and automobile links, and offers residents access to both work and non-work related destinations. Due to the permanence of transportation improvements, each improvement should be planned methodically to avoid costly mistakes that could be detrimental to the system's integrity in the future. Consideration should be given to the future maintenance of the system. Overall, roadways should feature designs compatible with current land uses, include multiple modes, feature adequate buffers and landscaping, and reflect residents' desires. Using such an approach, the City hopes to provide effective and efficient solutions that meet the future transportation needs of the community.

***PROPOSED* Table 7.1 City of Round Rock Transportation Master Plan Roadway Table**

Round Rock Roadway	Limits	Existing Typical Section	2010 Proposed Typical Section	2010Total Cost	2020 Proposed Typical Section	2020 Total Cost	Ultimate Proposed Typical Section	Ultimate Right-of-Way	Bicycle Facility
Arterial A	ETJ - University Blvd	---				-	MAD 4	110	Yes
Arterial A	University Blvd - CR 112/CR 117						MAD 4	110	Yes
Arterial A	CR 112/CR 117 - Old Settlers Blvd.	---			MAD 4	8,300,000		110	Yes
Arterial A	Old Settlers Blvd. - Joe DiMaggio	---			MAD 4	10,600,000		110	Yes
Arterial A	Joe DiMaggio to 1000' South of US 79	---	1/2 of MAD 6	18,000,000	1/2 of MAD 6	3,500,000		130	Yes
Arterial A	1000' South of US 79 - Forest Creek	---	1/2 of MAD 6	6,100,000	1/2 of MAD 6	2,000,000		130	Yes
Arterial A	Forest Creek - Gattis School Rd.	1/2 MAD 4			MAD 6	7,200,000		130	Yes
Arterial A	Gattis School Rd. - Louis Henna Blvd./SH 45 (N)	---			MAD 6	4,700,000		130	Yes
Arterial C	Sam Bass Rd. - RM 620 (at Deep Wood Dr.)	---			MAD 4	2,500,000		110	Yes
Arterial C	Deep Wood Dr. - O'Conner	---			MAD 4	15,200,000		110	Yes
Arterial H	Sam Bass Rd - Wyoming Springs Dr.	---					MAD 4	110	Yes
Arterial H	Wyoming Springs Dr. - IH 35	---					MAD 4	110	Yes
Arterial J	Arterial H - Chisolm Trail Rd.	---					MAD 4	110	
Arterial J	Chisholm Trail Rd. - IH 35 Frontage Road				MAD 4	1,100,000		110	
Arterial L	Chisholm Trail Rd. - Arterial M	---			MAD 4	11,700,000		110	
Arterial L	IH 35 Frontage Road - Sunrise Rd.	---			MAD 4	6,300,000		110	
Arterial M / Oakmont	University Blvd - Arterial L	---	MAD 4	7,500,000				110	
Arterial M	Arterial L - Jeffery Way	---	MAD 4	9,000,000				110	
Arterial M	Jeffery Way - Old Settlers Blvd	MAU 2	MAU 4	3,300,000				90	
AW Grimes Blvd.	US 79 - Lake Creek	MAD 6							Yes
AW Grimes Blvd.	Lake Creek - Gattis School Rd.	MAD 6							Yes
AW Grimes Blvd.	Gattis School Rd. - Louis Henna Blvd./SH 45 (N)	MAD 6							Yes
AW Grimes Blvd.	Louis Henna Blvd./SH 45 (N) - ETJ	MAU 2			MAD 4	3,000,000		110	Yes
Bowman Rd.	IH 35 - N. Mays St./BI IH 35	MAU 4							
Bowman Rd.	N. Mays St./BI IH 35 - Sunrise Rd.	MAU 4							
Bowman Rd.	Sunrise Rd. - FM 1460	MAD / MAU 4							
Brightwater Blvd.	Wyoming Springs Dr. - Great Oaks Dr.	MAD 4							
Chisholm Trail Rd.	Arterial J - Exsiting Chisholm Trail Rd	---			MAD 4	15,700,000		110	
Chisholm Trail Rd.	Existing Chisholm Trail - Old Settlers Blvd./FM 3406	MAU 2			MAD 4	4,200,000		110	
Chisholm Trail Rd.	Old Settlers Blvd./FM 3406 - Sam Bass Rd	MAU 2	MAD 4	8,100,000				110	
Chisholm Trail Rd. Connection / RM 1431(North)	Chisholm Trail Rd. - RM 1431	---			MAU 2	1,200,000		90	
Chisholm Trail Rd. Connection / RM 1431(South)	RM 1431 - Chisholm Trail Rd.	---			MAU 2	1,300,000		90	
CR 109	CR 110 - ETJ	MAU 2					MAD 4	110	
CR 110	ETJ - CR 109	MNR 2			MAD 4	14,500,000		110	
CR 110	CR 109 - US 79	MNR 2			MAD 4	15,000,000		110	
CR 112	AW Grimes Blvd. / FM 1460 - CR 110	MNR 2			MAD 4	13,600,000		110	Yes
Creek Bend Blvd.	Wyoming Springs - FM 3406	MAU 0 / 2					1/2 MAD 4	110	
Creek Bend Blvd. (Complete)	FM 3406 - Sam Bass Rd.	MAD 4							
Creek Bend Blvd. (Complete)	Sam Bass Rd. - Creek Bend Circle	MAD 4							
Creek Bend Blvd.	Creek Bend Circle - Wyoming Springs Dr.	---	MAD 4	4,200,000				110	Yes
Double Creek Lp.	US 79 - US 79	---			MAD 4	500,000		110	
Double Creek Dr.	US 79 - Forest Creek Dr.	MAD 4			MAD 4	8,800,000		110	
Double Creek Dr.	Forest Creek Dr. - Gattis School Rd.	MAD 4							
Double Creek Dr.	Gattis School Rd. - SH 45	MAD 4							
Forest Creek Dr.	Double Creek Dr. - Red Bud Ln..	MAD 4							
Gattis School Rd.	BI 35/Mays Street - Greenlawn Blvd.	MAU 4			MAD 4 T	6,300,000	MAD 6	130	
Gattis School Rd.	Greenlawn Blvd. - AW Grimes Blvd.	MAD 4T					MAD 6	130	Yes
Gattis School Rd.	AW Grimes Blvd. - Red Bud Ln.	MAU 4			MAD 4 T	15,400,000	MAD 6	130	Yes
Gattis School Rd. / CR 168	Red Bud Ln. - ETJ	MAU 2 / 4			MAD 4	3,400,000		110	
Great Oaks Dr. (Complete)	Brushy Creek Rd. - RM 620	MAD 4							
Great Oaks Dr.	RM 620 - O'Connor Dr.	---			MAD 4	2,800,000		110	
Greenlawn Blvd.	Gattis School Rd. - SH 45 (N)	MAD 4							
Greenlawn Blvd.	SH 45 (N) - IH 35 (N)	MAD 4					MAD 6	130	
Greenlawn Blvd.	IH 35 (N) - ETJ	---					MAD 4	110	
Hesters Crossing	CR 172 - IH 35	MAD 4							
La Frontera Blvd.	Hesters Crossing - SH 45 (N)	MAD 4							
Mays St.	Old Settler's Blvd. - Brushy Creek	MAD 4							
Mays St.	Brushy Creek - Lake Creek	MAU 4					MAU 4/MAD 4	110	
Mays St.	Lake Creek - IH 35 (N)	MAD 4							
Mays St.	At Hesters Crossing	---	Realign						
McNeil Rd.	SH 45 - Quick Hill Rd.	MAU 4					MAD 6	130	
McNeil Rd.	Quick Hill Rd.- IH 35	MAU 4					MAD 6	130	Yes

***PROPOSED* Table 7.1 City of Round Rock Transportation Master Plan Roadway Table**

Round Rock Roadway	Limits	Existing Typical Section	2010 Proposed Typical Section	2010Total Cost	2020 Proposed Typical Section	2020 Total Cost	Ultimate Proposed Typical Section	Ultimate Right-of-Way	Bicycle Facility
McNeil Rd.	IH 35 - Mays St./BI IH 35	MAU 4 / 2					MAD 4	110	
Oakmont Dr.	ETJ - Terravista Blvd.	---	MAD 4	2,700,000				110	
Oakmont Dr.	Terravista Blvd. - University Blvd.	MAD 4							
O'Connor Dr.	Avery Ranch Rd. - Great Oaks Dr.	MAD 4					MAD 6	130	
O'Connor Dr.	Great Oaks Dr. - RM 620	MAD 4					MAD 6	130	
O'Connor Dr.	RM 620 - SH 45	---			MAD 4	2,800,000		110	
Old Settlers Blvd.	IH 35 - Greenhill Dr. East	MAD 4					MAD 6	130	Yes
Old Settlers Blvd.	Greenhill Dr. East - AW Grimes Blvd.	MAD 4					MAD 6	130	Yes
Old Settlers Blvd.	AW Grimes Blvd.. - Red Bud Lane	MAD 4							Yes
Pfluger Ln. / Pflugerville Lp.	Greenlawn Blvd. - ETJ	MNR 0/2	MAD 4	1,100,000				110	
Quick Hill Rd.	McNeil Rd. - SH 45 (N)	MAU 4			MAD 4	4,500,000		110	
Red Bud Ln.	CR110 - Old Settlers Blvd.	MNR 2			MAD 4	5,700,000		110	
Red Bud Ln.	Old Settlers Blvd. - US 79	MAD 2			MAD 4	5,900,000		110	
Red Bud Ln. (Complete)	US 79 - CR 123	MAD 4					MAD 4	110	
Red Bud Ln.	CR 123 - Gattis School Rd.	MAD 2			MAD 4	5,500,000		110	
Red Bud Ln.	Gattis School Rd. - ETJ	MNR 2							
Sam Bass Rd. (Complete)	New Hope Dr. - FM 1431	MAD 4							
Sam Bass Rd.	FM 1431 - FM 3406	MAU 2			MAD 4	15,100,000		110	
Sam Bass Rd.	FM 3406 - Meadows Dr. East	MAU 2			MAD 4	8,400,000		110	
Sam Bass Rd.	Meadows Dr. East - IH 35 (N)	MAU 4	MAD 4	3,600,000				110	
Schultz Ln.	SH 45 N - ETJ	MNR 2							
Seton Pkwy.	University Blvd - CR 112	---	MAD 4	4,000,000				110	
Sunrise Rd.	University Blvd. - Old Settler's Blvd.	MAD 4							Yes
Sunrise Rd.	Old Settler's Blvd. - US 79	MAU 4					MAD 4	110	
University Blvd.	IH 35 (N) - Sunrise Rd.	MAD 4			MAD 6	10,800,000		130	
University Blvd.	Sunrise Rd.- AW Grimes	MAD 4					MAD 6	130	
University Blvd.	AW Grimes Blvd. - CR 110	MNR 2			MAD 4 T	8,200,000	MAD 6	130	
University Blvd.	CR 110 - SH 130 (N)	---			MAD 4 T	6,600,000	MAD 6	130	
University Blvd.	SH130(N) - ETJ	---					MAD 6	130	
Wyoming Springs Dr.	Arterial H - FM 1431	---					MAD 4	110	
Wyoming Springs Dr.	FM 1431 - FM 3406	--- / MAD 4			MAD 4	9,700,000		110	Yes
Wyoming Springs Dr.	FM 3406 - Bright Water Blvd./Creek Bend Blvd.	---			MAD 4	9,100,000		110	Yes
Wyoming Springs Dr.	Bright Water Blvd./Creek Bend Blvd. - RM 620	1/2 of MAD 4	MAD 4	5,300,000				110	Yes
Wyoming Springs Dr.	RM 620 - Arterial C	---			MAD 4	3,100,000		110	
			Sub-Total	**72,900,000**		**274,200,000**			

Projects Controlled by TxDOT - Funded all/part by City									
IH 35	Westinghouse Rd./CR 111 - FM 1431	---	Ramps, Frontage Road & Turnarounds	Under Construction				*	*
IH 35	Between Hesters Crossing and SH 45	---	Collector/Distributor	23,000,000				*	*
IH 35	At Greenlawn Blvd.	---			Interchange			*	*
Mays St / BI 35-L	Gattis School Rd.	MAU 4					Right Turn Lane	*	*
Old Settlers Blvd. (West) / FM 3406	Wyoming Springs Dr. (Sam Bass Rd.) - IH 35 (N)	MAU 4					MAD 6	*	*
Palm Valley Blvd. / US 79	IH 35 (N) - N. Mays St./BI IH 35	MAD 6					*MAD 8	*	*
Palm Valley Blvd. / US 79	Mays St./BI IH 35 - FM 1460	MAD 4			*MAD 6	14,200,000	*MAD 8	*	*
RM 620	SH 45 (N) - O'Connor Dr.	MAU 4					*MAD 8	*	*
RM 620	O'Connor Dr. - Wyoming Springs Dr.	MAU 4					*MAD 8	*	*
Round Rock Ave. / RM 620	Wyoming Springs Dr. - N. Lake Creek Dr.	MAD 4			*MAD 6	4,200,000	*MAD 8	*	*
Round Rock Ave. / RM 620	N. Lake Creek Dr. - IH 35 (N)	MAD 4			MAD 6		*MAD 8	*	*
Round Rock Ave. / RM 620	At Union Pacific Railroad	---			Grade Separation			*	*
			Sub-Total	**23,000,000**		**18,400,000**			

***TxDOT Typical Section**

***PROPOSED* Table 7.1 City of Round Rock Transportation Master Plan Roadway Table**

Round Rock Roadway	Limits	Existing Typical Section	2010 Proposed Typical Section	2010Total Cost	2020 Proposed Typical Section	2020 Total Cost	Ultimate Proposed Typical Section	Ultimate Right-of-Way	Bicycle Facility
Projects Controlled and Funded by TxDOT									
AW Grimes / FM 1460	Westinghouse Rd./CR 111 - Chandler Rd./CR 114	MNR 2			*MAD 4	23,500,000		*	*
AW Grimes / FM 1460	University Blvd./CR 114 - Old Settlers Blvd	MNR 2			*MAD 4	21,500,000		*	*
AW Grimes / FM 1460	Old Settlers Blvd - US 79	MNR 2			MAU 4	12,100,000		*	*
FM 1431	Parmer Lane - Wyoming Springs Dr	MAU 4			*MAD 4	17,600,000	*MAD 8	*	*
FM 1431	Wyoming Springs Dr - IH 35	MAU 4			*MAD 4	13,200,000	*MAD 8	*	*
IH 35	Westinghouse Rd./CR 111 - FM 3406	FWY 6					FWY 8/HOV	*	*
IH 35	FM 3406 - RM 620	FWY 6					FWY 8/HOV	*	*
IH 35	RM 620 - SH 45 (N)	FWY 6					FWY 8/HOV	*	*
IH 35	N of RM 620 - S of McNeil Rd.	FWY 6	Turnaround	7,650,000				*	*
IH 35	SH 45	Toll FWY 6			Direct Connectors	100,000,000		*	*
Loop 1 / MOPAC Blvd.	SH 45 (N) - Parmer Ln..	Toll FWY 6					TOLL FWY 6/HOV	*	*
Palm Valley Blvd. / US 79	FM 1460 - CR 122	*MAD 4			*MAD 6	21,400,000		*	*
Palm Valley Blvd. / US 79	Red Bud La. / CR 122 - FM 685/SH 130 (N)	*MAD 4 T					*MAD 6	*	*
SH 130	CR 111 - US 79	Toll PKY 6						*	*
SH 130	US 79 - Gattis School Rd./CR 168	Toll PKY 6						*	*
SH 130	Gattis School Rd./CR 168 - SH 45 (N)	Toll PKY 6						*	*
SH 45 (N)	RM 620 - FM 1325/Loop 1	Toll PKY 6						*	*
SH 45 (N)	FM 1325/Loop 1 - IH 35 (N)	Toll FWY 6						*	*
SH 45 (N) / Louis Henna Blvd.	IH 35 (N) - Greenlawn Blvd.	Toll FWY 6						*	*
SH 45 (N) / Louis Henna Blvd.	Greenlawn Blvd. - AW Grimes Blvd/CR 170	Toll FWY 6						*	*
SH 45 (N) / Louis Henna Blvd.	AW Grimes Blvd/Grand Avenue Parkway - SH 130 (N)	Toll FWY 6						*	*
			Sub-Total	**7,650,000**		**209,300,000**			

***TxDOT Typical Section**

Key To Typical Sections:
FWY - Freeway
PKWY - Parkway
MAD - Major Arterial Divided
MAU - Major Arterial Undivided
MNR - Minor Arterial
--- - No Existing Typical Section
The number after the roadway classification indicates the number of lanes.
A "MAD" roadway is divided by a raised median, flush center left turn lane, or central drainage ditch. The selection is made during the roadway design process.

Roadway Abbreviations:
IH / BI - Interstate Highway / Business Route Interstate Highway
SH - State Highway
FM - Farm to Market Road
RM - Ranch to Market Road
CR - County Road

Notes:
1. Bicycle facility from Wyoming Springs Dr. to Deep Wood Dr. only.
2. Bicycle facility from Onion Branch Creek to IH 35 only.
3. Ultimate right-of-way width can accommodate landscaping. Location of landscaping is determined by ordinance or during the roadway design process.